i.MXL Processor

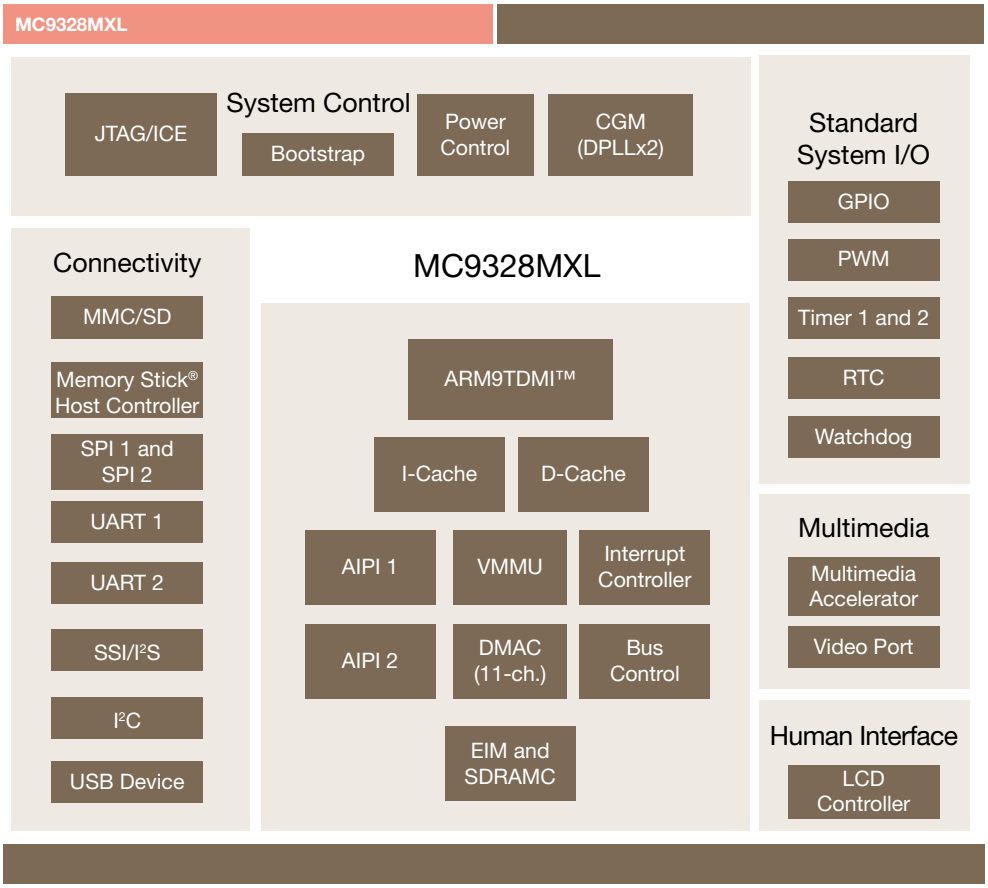
Overview

Freescale Semiconductor's advanced i.MX family of applications processors helps you quickly harness the power of wireless, broadband, multimedia and the Internet.

Designed for use in smartphones, wireless PDAs, mobile gaming, GPS systems and many other mobile wireless applications, Freescale's i.MX applications processors are a smart choice for mobile and embedded devices where performance and long battery life are desired.

Handheld device developers seeking industry-leading power performance and a broad range of features at an attractive price point need look no further. Enter the i.MXL applications processor, designed for real-time applications enabled by the ARM920T™ microprocessor core and equipped with a rich set of highly integrated peripherals and features. The i.MXL is ideal for products optimized for multimedia applications in low-cost, yet feature-rich, devices.

For companies providing wireless consumers with fast, graphics-enhanced data and voice applications, efficient power management—i.e., high performance with long battery life—is essential. The i.MXL is designed to set new industry standards in delivering significant power management savings to customers. The i.MXL also features a state-of-the-art LCD controller designed to lower the overall system cost and clock frequency, resulting in longer battery life and improved display performance.



Features

- ARM920T microprocessor core
- LCD controller (LCDC)
- AHB to IP bus interfaces (AIPIs)
- External interface module (EIM)
- SDRAM controller (SDRAMC)
- Phase-locked loop (PLL) and power control module
- Two universal asynchronous receiver/transmitters (UART 1 and UART 2)
- Two serial peripheral interfaces (SPIs)
- Two general-purpose 32-bit counters/timers
- Watchdog timer
- Real-time clock (RTC)/sampling timer
- Pulse-width modulation (PWM) module
- USB device
- Multimedia card and secure digital (MMC/SD) host controller module
- Memory Stick® host controller (MSHC)
- Direct memory access controller (DMAC)
- Synchronous serial interface and inter-IC sound (SSI/I²S) module
- Inter-IC (I²C) bus module
- Video port
- General-purpose I/O (GPIO) ports
- Bootstrap mode
- Multimedia accelerator (MMA)
- Power management features
- Operating voltage range: I/O voltage at 1.7V–3.3V; core voltage at 1.7V–1.98V
- Packaging: 256-pin MAPBGA or 225-pin MAPBGA

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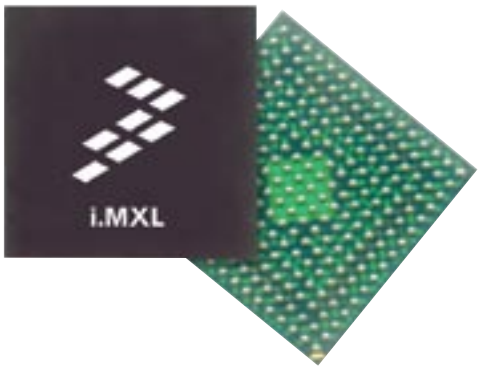
Benefits

- Power management functionality at an attractive price for the consumer portable products market
- Pin- and software-compatible with the i.MX1 applications processor, with a high level of reuse among features
- Based on ARM® core technology
- Offers a high level of system integration—among shared peripherals, standard and multimedia interfaces and more—for small form factor products and low overall system costs
- System-on-chip (SoC) integration enables efficient MP3, JPEG encode and decode, and MPEG-4 media processing, as well as offers extremely low power consumption and low overall system costs

Freescale Wireless Developer Network

Combining resources from Freescale and industry leaders, the Freescale Wireless Developer Network offers advanced pre-integrated platforms and solutions designed to work out-of-the-box, accelerating your business and giving you a competitive advantage. The Freescale Wireless Developer Network is a global program created to bring comprehensive platforms to market that include hardware and software solutions, tools, systems integration, consulting and other services. With early access to improved tools, Freescale Wireless Developer Network members are better equipped to deliver mobile and wireless solutions to a global audience in less time, with less effort and at a lower cost.

For more information about the Freescale Wireless Developer Network, visit **www.freescale.com/fwdn**.



Learn More: For current information about Freescale products and documentation, please visit **www.freescale.com/imx**

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